

# Salt River Fire Department Operating Guidelines

## Vent Group

May 2006 (Rev)

202.06

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### Purpose

This procedure identifies the responsibilities and objectives of the Vent Group. Early ventilation of a building is critical to the success of fire control operations and the safety of firefighters and victims.

Many buildings experiencing a fire must have roof ventilation completed to assure adequate ventilation of the building. Command will assign this responsibility to the Vent Group.

Command should establish a Vent Group during offensive fire operations to evaluate roof conditions and to complete roof ventilation. Ladder companies should be strategically placed to allow safe access to the roof, emergency exit from the roof, and in tactical positions that would permit effective defensive operations if needed. Vent Group responsibilities will be assigned to company or chief officers who must be on the roof to supervise crews.

Safe Vent Group operations are paramount. Vent Group crews must enter the roof from an established safe area and must have a secondary means to escape the roof, or to a safe refuge on an unexposed and structurally sound roof surface. The Vent Group will be responsible for obtaining its own protective hose line as needed.

The first personnel reaching the roof must quickly evaluate conditions to assure the roof is structurally sound before attempting to work on it. The degree and extent of any signs of weakness must be considered before committing personnel above the fire. Once on the roof, the Vent Group officer and Vent Group personnel must evaluate their route and progress as they proceed out onto the roof. A constant re-evaluation of roof safety and reports to Command must be maintained throughout roof operations. Time and fire conditions will be constantly working to weaken the roof.

The initial Vent Group Officer must report to Command the following conditions:

- a. Roof design and construction (flat, peaked, bowstring, etc.)
- b. Structural conditions
- c. Fire conditions or effects of fire on roof
- d. Locations of fire walls

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- e. Locations of heavy objects that are affected by fire conditions
- f. Ventilation plan
- g. Needs for additional resources

### **The objectives for Vent Group operations include:**

1. Determining a safe working surface.
2. Complete adequate size ventilation hole(s) and achieve effective ventilation.
3. Coordinate roof ventilation with positive pressure ventilation.
4. Coordinate roof fire control operations as directed by Command.
5. Maintain rooftop monitoring of roof structure and fire conditions.
6. Communicate with Interior Division
7. Provide progress reports to Command.

Adequate size ventilation holes must be cut and opened if ventilation is to be successful.

Ventilation hole(s) of at least 10% of roof surface of the involved area is a rule of thumb to consider.

In some cases, more than one hole will be required to meet the 10% objective. As one hole is opened, the roof sector should cut additional holes in the next adjacent areas.

Crews must move from the first hole towards safer areas with each consecutive ventilation hole.

**Caution! Additional holes consume time.**

**The Vent Group must constantly evaluate the structural stability of the roof as it relates to changing fire conditions and time.**

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**The Vent Group must advise Command when ventilation holes are completed and the effect the ventilation has on the fire.**

The Vent Group must monitor the radio at all times. Radio contact must be monitored over the noise of saw(s). When providing progress reports, etc., during high noise operations, the Roof Sector should shield the radio from the noise or step a short distance away when safe to do so to minimize the background noise.

Roof ladders shall be used for operations on any roof where the roof pitch presents a problem or crews cannot effectively operate aerial ladders or aerial platform appliances.

All Vent Group personnel shall wear full protective clothing and equipment when operating above a fire.

SCBA with face pieces connected will be worn at all times while operating above a fire.

Command must closely coordinate positive pressure ventilation when it is being used in conjunction with roof ventilation. Command, Interior Division, and Vent Group must communicate directly with each other for best results. Positive pressure should not be utilized until an exhaust exit can be established on the fire floor (horizontal) or roof ventilation is completed.